

Part 1 – Amended Claims

75. (Amended) A catheter for insertion into a urethra to perform a therapeutic heat treatment of a prostate which surrounds a prostatic urethra to enlarge a urine drainage passage through the prostate from a urinary bladder into a urethra of a human being, comprising:

5 an antenna located at a position within the catheter adjacent to the prostatic urethra and the prostate upon insertion of the catheter into the urethra to a treatment position at which the treatment is performed, the antenna for emitting electromagnetic radiation into the prostate to heat therapeutically with the emitted radiation a portion of the prostate surrounding a portion of the prostatic urethra;

10 an expandable reservoir within the catheter surrounding the antenna and located to extend along a portion of the prostatic urethra upon positioning the catheter in the treatment position, the reservoir for containing liquid and expanding in radial size relative to adjoining portions of the catheter upon pressurizing the liquid within the reservoir, the extent of radial expansion of the reservoir being sufficient to
 15 compress tissue adjacent to the reservoir and reduce blood flow through the compressed tissue to reduce the transmission of heat by blood flow away from the compressed tissue;

the expandable reservoir confining the liquid to absorb heat from the antenna and from a portion of the electromagnetic radiation emitted from the
 20 antenna, the reservoir having a capacity for conductively transmitting sufficient heat from the liquid to heat therapeutically a first region of tissue immediately adjoining the expanded reservoir, the reservoir and the liquid having a capacity for transmitting sufficient electromagnetic radiation emitted from the antenna to heat therapeutically a
 25 second region of tissue located beyond the first region from the reservoir, the capacity for therapeutically heating the first and second tissue regions being sufficient to enlarge the urine drainage passage;

a channel extending within the catheter from a position at an exterior of the urethra and communicating with the expandable reservoir for conducting pressurized liquid into the reservoir; and

30 a source of additional heat for the liquid within the expandable reservoir
beyond the heat from the antenna and from the emitted electromagnetic radiation.

81. (Amended) A catheter for insertion into a urethra to perform a
therapeutic heat treatment of a prostate which surrounds a prostatic urethra to
enlarge a urine drainage passage through the prostate from a urinary bladder into a
urethra of a human being, in combination with an energy supply unit, the catheter
5 comprising:

an antenna located at a position within the catheter adjacent to the
prostatic urethra and the prostate upon insertion of the catheter into the urethra to a
treatment position at which the treatment is performed, the antenna for emitting
electromagnetic radiation into the prostate to heat therapeutically with the emitted
10 radiation a portion of the prostate surrounding a portion of the prostatic urethra;

an expandable reservoir within the catheter surrounding the antenna
and located to extend along a portion of the prostatic urethra upon positioning the
catheter in the treatment position, the reservoir for containing liquid and expanding in
radial size relative to adjoining portions of the catheter upon pressurizing the liquid
15 within the reservoir, the extent of radial expansion of the reservoir being sufficient to
compress tissue adjacent to the reservoir and reduce blood flow through the
compressed tissue to reduce the transmission of heat by blood flow away from the
compressed tissue;

the expandable reservoir confining the liquid to absorb heat from the
20 antenna and from a portion of the electromagnetic radiation emitted from the
antenna, the reservoir having a capacity for conductively transmitting sufficient heat
from the liquid to heat therapeutically a first region of tissue immediately adjoining the
expanded reservoir, the reservoir and the liquid having a capacity for transmitting
sufficient electromagnetic radiation emitted from the antenna to heat therapeutically a
25 second region of tissue located beyond the first region from the reservoir, the
capacity for therapeutically heating the first and second tissue regions being sufficient
to enlarge the urine drainage passage; and

a channel extending within the catheter from a position at an exterior of the urethra and communicating with the expandable reservoir for conducting
30 pressurized liquid into the reservoir; and the energy supply unit comprising:
a microwave generator for generating electromagnetic energy and
electrically connected to the antenna at a position exterior of the urethra; and
a liquid supply device connected to the channel at a position exterior of
the urethra to supply liquid through the channel to fill the reservoir with liquid and to
35 pressurize the liquid within the reservoir to expand the reservoir; and wherein:
the antenna emits electromagnetic radiation from the application of the
electromagnetic energy generated by the microwave generator and generates heat in
the liquid in the reservoir as a result of emitting the electromagnetic radiation; and
further comprising:
40 a source of additional heat for the liquid within the expandable reservoir
beyond the heat from the antenna and from the emitted electromagnetic radiation;
and wherein:
the energy supply unit further comprises a source of energy for the
second heat source.